

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : DIMAIO et al.

Appl. No. : To be assigned Examiner: To be assigned

Filed : Art Unit: To be assigned

For : PROCESS FOR THE OLIGOMERIZATION OF α -OLEFINS
HAVING LOW UNSATURATION, THE RESULTING
POLYMERS, AND LUBRICANTS CONTAINING SAME

Attorney Docket No.: 0095-UP (UNI115US)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Listed on the accompanying Form PTO-1449 are documents that may be considered material to the examination of this application and are submitted in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97, and 1.98. Copies of these documents are provided.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue.

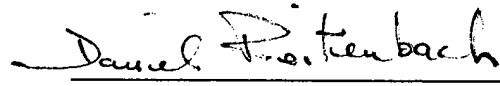
The applicants reserve the right to establish the patentability of the claimed invention over any of the information provided by this statement, to prove that the enclosed information is not prior art, and/or to prove that this information is not enabling for the teachings purportedly offered.

This statement should not be construed as a representation that an exhaustive search has been made or that there does not exist information more material to the examination of the present patent application. The Examiner is specifically requested not to rely solely on the material submitted with this statement.

The applicants request that the examiner initial and return a copy of the enclosed Form PTO-1449 and indicate in the official file history of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 21-0525.

Date



Daniel Reitenbach
Registration No. 30,970

Crompton Corporation
Benson Road
Middlebury, Connecticut 06749

(203) 573-2000

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0095-UP	APPLICATION NO. To be assigned
	APPLICANTS DIMAIO et al.	
	FILING DATE	GROUP To be assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
CL	AA1	5,087,677	Feb. 11, 1992	Brekner et al.	526	160	Jul. 5, 1990
	AB1	5,324,801	June. 28, 1994	Brekner et al.	526	160	Aug. 9, 1993
	AC1	5,359,001	Oct. 25, 1994	Epple et al.	525	97	Apr. 20, 1993
	AD1	5,371,158	Dec. 6, 1994	Brekner et al.	526	127	Jul. 2, 1993
	AE1	5,677,405	Oct. 14, 1997	Goodall et al.	526	281	May 24, 1995
	AF1	5,990,254	Nov. 23, 1999	Weller et al.	526	160	Dec. 26, 1996

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
CL	AL1	99/67347		WO			Yes No
	AM1	0694567 A2		EP			Yes No
	AN1	0661310 B1		EP			Yes No
	AO1	0683797 B1		EP			Yes No
	AP1	0661308 B1		EP			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

CL	AR	1	Kaminsky et al., Studies in Surface Science and Catalysts, 1989, Polymerization of Cyclic Olefins with Homogeneous Catalysts, pages 425-438.
	AS	1	Kaminsky et al., Makromol. Chem., Macromol. Symp 47, 83-93 (1991).
	AT	1	Kaminsky, Polymerization and Copolymerization of Olefins with Metallocene/Aluminoxand Catalysts, Vol. 33, No. 8, 1991, pages 536-544.

EXAMINER <i>CL</i>	DATE CONSIDERED <i>3-20-03</i>
--------------------	--------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0095-UP	APPLICATION NO. To be assigned
	APPLICANTS DIMAIO et al.	
	FILING DATE	GROUP To be assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1						
	AB1						
	AC1						
	AD1						
	AE1						
	AF1						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
CL	AL1	0503422 B1		EP			Ye N
	AM1	0501370 B1		EP			Ye N
	AN1	0407870 B1		EP			Ye N
	AO1	0693568 A1		EP			Ye N
	AP1	0485893 B1		EP			Ye N

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

CL	AR	1	Kaminsky et al, Stereospecific Polymerization by Metallocene/Aluminoxane Catalysts, Journal of Molecular Catalysis, 74 (1992) 109-119.
	AS	1	Cherdron et al., Cycloolefin-Copolymere: Eine neue Klasse transparenter Thermoplaste, Die Angewandte Makromolekulare Chemie 223 (1994), 121-133 (4011).
	AT	1	Janiak et al., Metal Catalysts for the Vinyl Polymerization of Norbornene, Journal of Molecular Catalysis A: Chemical 166 (2001) 193-209.

EXAMINER <i>Carrie Lu</i>	DATE CONSIDERED 3-20-03
------------------------------	----------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 0095-UP		APPLICATION NO.			
				To be assigned					
				APPLICANTS DIMAIO et al.					
				FILING DATE		GROUP			
						To be assigned			

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1						
	AB1						
	AC1						
	AD1						
	AE1						
	AF1						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1						Yes: No
	AM1						Yes: No
	AN1						Yes: No
	AO1						Yes: No
	AP1						Yes: No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
a	AR	1	Kaminsky et al., A Tailor-Made Metallocene for the Copolymerization of Ethene with Bulky Cycloalkenes, Angew. Chem. Int. Ed. Engl. 1995, 34, No. 20, pps. 2273-2275.
	AS	1	Janiak et al., The Vinyl Homopolymerization of Norbornene, Macromol. Rapid Commun. 2001, 22, 479-492.
	AT	1	Brintzinger et al., Stereospecific Olefin Polymerization with chiral Metallocene Catalysts, Angew. Chem. Int. Ed. Engl. 1995, 34, 1143-1170.

EXAMINER <i>Carina Lu</i>	DATE CONSIDERED <i>3-20-03</i>
---------------------------	--------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0095-UP	APPLICATION NO. To be assigned
	APPLICANTS DIMAIO et al.	
	FILING DATE	GROUP To be assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1						
	AB1						
	AC1						
	AD1						
	AE1						
	AF1						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1						Ye N
	AM1						Ye N
	AN1						Ye N
	AO1						Ye N
	AP1						Ye N

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<i>a</i>	AR	<u>1</u>	Kaminsky, New Polymers by Metallocene Catalysis, Macromol. Chem. Phys. 197, 3907-3945 (1996).
<i>l</i>	AS	<u>1</u>	Kaminsky et al., Homo-and Copolymerization of Cycloolefins by Metallocene Catalysts, Metallocene-based Polyolefins, Vol. 2, 2000, pp. 91-113.
<i>l</i>	AT	<u>1</u>	Ruchatz et al., Ethene-Norbornene Copolymerization, Macromolecules, Vol. 31, No. 15, 1998, pp. 4669-4673.

EXAMINER <i>Antin Lu</i>	DATE CONSIDERED <i>3-20-03</i>
--------------------------	--------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 0095-UP		APPLICATION NO. To be assigned	
				APPLICANTS DIMAIO et al.			
				FILING DATE		GROUP To be assigned	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1						
	AB1						
	AC1						
	AD1						
	AE1						
	AF1						
FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1						Yes No
	AM1						Yes No
	AN1						Yes No
	AO1						Yes No
	AP1						Yes No
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
CL	AR	1	Ruchatz et al. Ethene-Norbornene Copolymerization, Macromolecules 1998, 31, 4674-4680.				
I	AS	1	Ruchatz et al., Ethene-Norbornene Copolymerization, Macromolecules 1998, 31, 4681-4683.				
I	AT	1	Ruchatz et al., Ethene-Norbornene Copolymerization, Macromolecules 1998, 31, 4684-4686.				
EXAMINER <i>Carla L.</i>						DATE CONSIDERED <i>3-20-03</i>	
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.							

FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0095-UP	APPLICATION NO. To be assigned
	APPLICANTS DIMAIO et al.	
	FILING DATE	GROUP To be assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1						
	AB1						
	AC1						
	AD1						
	AE1						
	AF1						

FOREIGN PATENT DOCUMENTS


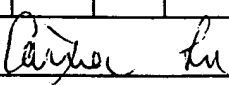
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1						Ye N
	AM1						Ye N
	AN1						Ye N
	AO1						Ye N
	AP1						Ye N

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

ca	AR	1	McKnight et al., Ethylene/Norbornene Copolymerizations with Titanium CpA Catalysts, Macromolecules 1999, 31, 2816-2825.
	AS	1	Arndt-Rosenau et al., Microstructure of Ethene/Norbornene Copolymers, Macromolecules, Vol. 32, 22, 7335-7343.
	AT	1	Grassi et al., Synthesis of Ethylene-co-Norbornene Polymers Promoted by MAO Free Catalysts Based on Group 4 Dicarbolide Complexes, Macromol. Chem. Phys. 2001, 1239-1245.

EXAMINER <i>Arndt Rosenau</i>	DATE CONSIDERED <i>3-28-03</i>
-------------------------------	--------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>				ATTY. DOCKET NO. 0095-UP		APPLICATION NO. To be assigned			
				APPLICANTS DIMAIO et al.					
				FILING DATE		GROUP To be assigned			
U.S. PATENT DOCUMENTS									
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE		
	AA1								
	AB1								
	AC1								
	AD1								
	AE1								
	AF1								
FOREIGN PATENT DOCUMENTS									
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION		
	AL1						Yes No		
	AM1						Yes No		
	AN1						Yes No		
	AO1						Yes No		
	AP1						Yes No		
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)									
	AR	1	Peucker et al., Vinylic Polymerization and Copolymerization of Norbornene and Ethene by Homogeneous Chromium (III) Catalysts, Macromol. Chem. Phys. 2001, 202, 1289-1297.						
	AS	1							
	AT	1							
EXAMINER 					DATE CONSIDERED 3-20-03				
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.									